

**Project Scoping Meeting  
Simplot Plant Area Remedial Design  
Eastern Michaud Flats Superfund Site**

**August 6, 2002**

## **Summary**

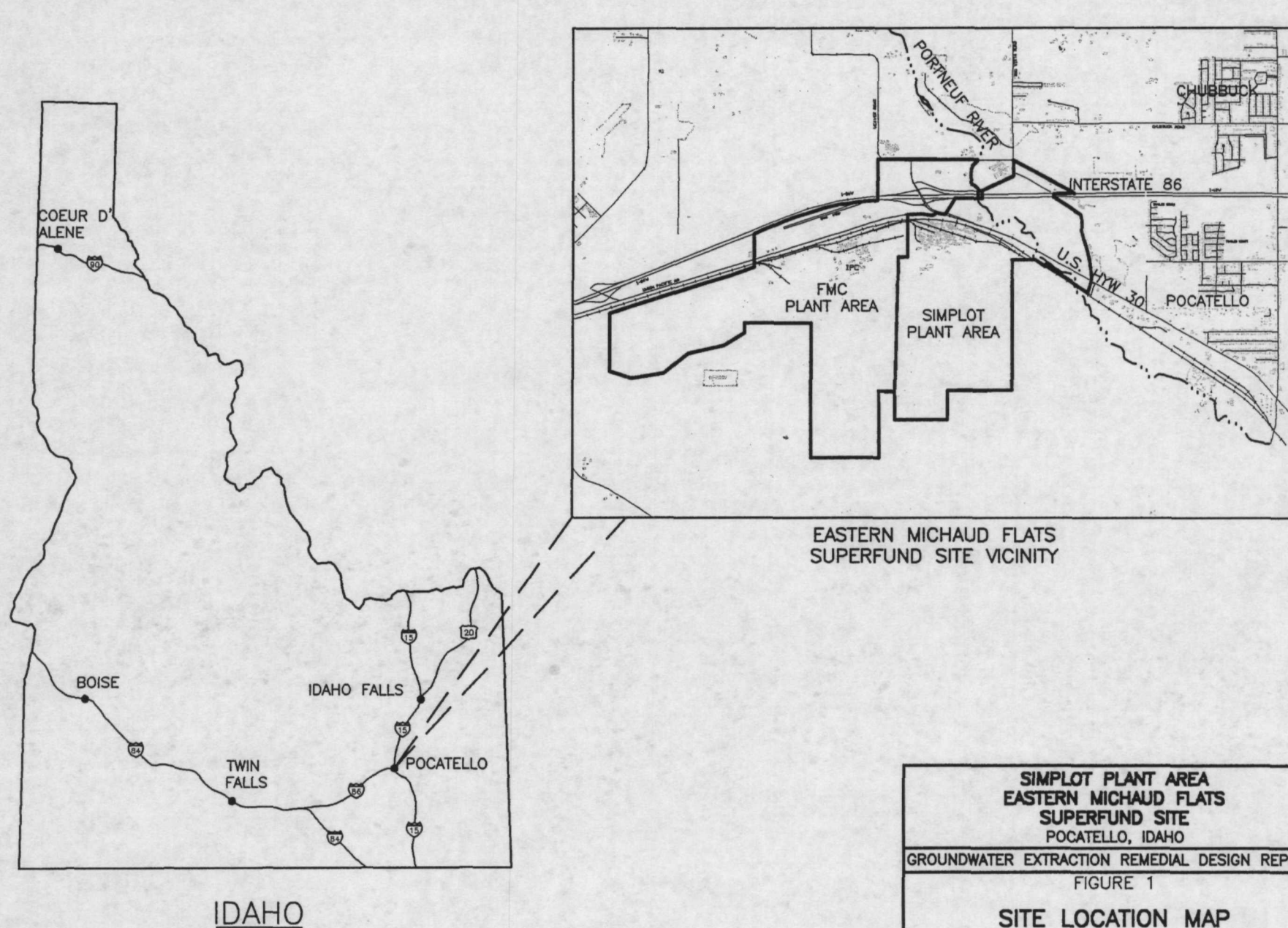
The Remedial Design/Remedial Action Consent Decree for the Simplot Plant Area portion of the Site was finalized on May 9, 2002.

The Consent Decree Statement of Work (SOW) addressed the following work elements for remediation:

- Groundwater Extraction
- Dewatering Pit
- Gypsum Stack Roads
- Former East Overflow Pond
- Groundwater Monitoring
- Simplot Plant Area Institutional Controls

Remedial design and construction completion reports have been submitted (delivery date was August 5, 2002).

The following pages provide a summary of each element of work.



Subject \_\_\_\_\_

Project No. \_\_\_\_\_

By \_\_\_\_\_ Checked By \_\_\_\_\_

Task No. \_\_\_\_\_

Date \_\_\_\_\_ Date \_\_\_\_\_

File No. \_\_\_\_\_

Sheet \_\_\_\_\_ of \_\_\_\_\_

PROJECT SCOPING MEETING  
AUGUST 6, 2002

SIGN-IN SHEET

| <u>NAME</u>    | <u>ORGANIZATION</u> | <u>PHONE</u>   |
|----------------|---------------------|----------------|
| LEON PRUETT    | JRS - Don Plant     | (208) 234-5370 |
| Ward Wolkstein | Simplot Corp.       | (208) 389-7558 |
| Doug Frick     | MFG                 | 425-921-4000   |
| Andy Koulermos | MFG                 | 303 447-1823   |
| DAN PASTOR     | MFG                 | "              |
| Dale Reavis    | JRS                 | (208) 234-5476 |
| Roger Turner   | Sho-BAN             | 208 478-3905   |
| Sue SKINNER    | EPA - Pocatello     | (208) 478-1680 |
| Linda MEYER    | EPA                 | (206) 553-6636 |
| Joe Baldwin    | DEQ - Boise         | (208) 373-0248 |
| Ed Greutert    | EPA Contractor      | (206) 386-4793 |
| Rick Kuhlthau  | ASE/EPA Contractor  | (703) 876-6287 |
| Lynn Van Every | DEQ - Pocatello     | (208) 236-6160 |
| Doug Tanner    | DEQ - Pocatello     | (208) 236-6160 |



Calcein Pond Constituents - selenium/chloride > 5 mg/L

decrea

rates of seepage out bottom of stack probably have not  $\Delta$  substantially since concentrations are still same.  
cone of depression due to pumping - ROD/RA document 1.

Production wells capture the majority of gas stack plume - no quality data from production well / flow gradient between west boundary to well 403 = low gradient.

1996 - installed 3 extraction test wells. 345/343 337/338 24 hr pump test  
deep upper

343 has been pumping 60-100 gpm last 4 years.  
large radius of influence.  
In 1997 field report.

problem w/scavenging - pilot test.

why no wells in upper zone.

(Upper zone 10' thick)

not feasible - not much flow in this zone

Subject \_\_\_\_\_

Project No. \_\_\_\_\_

By \_\_\_\_\_ Checked By \_\_\_\_\_

Task No. \_\_\_\_\_

Date \_\_\_\_\_ Date \_\_\_\_\_

File No. \_\_\_\_\_

Sheet \_\_\_\_\_ of \_\_\_\_\_

PROJECT SCOPING MEETING  
AUGUST 6, 2002

## SIGN-IN SHEET

| <u>NAME</u>    | <u>ORGANIZATION</u> | <u>PHONE</u>   |
|----------------|---------------------|----------------|
| LEON PRUETT    | JRS- Don Plant      | (208) 234-5370 |
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| DAN PASTOR     | MFG                 | "              |
| Dale Reavis    | JRS                 | (208) 234-5476 |
| Roger Turner   | Sho-BAN             | 208 478-3905   |
| Sue SKINNER    | EPA- Pocatello      | (208) 478-1680 |
| Linda MEYER    | EPA                 | (206) 553-0636 |
| Joe Baldwin    | DEQ-Burien          | (208) 373-0248 |
| Ed Erentert    | EPA Contractor      | (206) 386-4793 |
| Rick Kuhlthau  | ASE/EPA Contractor  | (703) 876-6287 |
| Lynn Van Every | DEQ- Pocatello      | (208) 236-6160 |
| Doug Tanner    | DEQ- Pocatello      | (208) 236-6160 |

## Groundwater Extraction System Design

- Groundwater modeling was performed during the Feasibility Study (FS) to identify candidate extraction areas.
- The modeling effort indicated nearly all of the stack-affected groundwater could be intercepted by placing extraction wells in the western relect channel (Location "A"), on the eastern side upper zone near the toe of the lower gypsum stack (Location "B") and in the eastern side lower zone (Location "C") (see figure)
- Field studies and pilot tests were then performed to further evaluate the candidate extraction areas and see if the identified pumping scenarios would hold true under active pumping.
- Based on pumping results, the following well spacings and pumping rates were indicated for optimal groundwater capture:

### West Plant Area

- Two wells within the relect channel pumping at a combined rate of 150 gpm.

### East Plant Area

- For the upper zone, seven wells along the toe of the lower stack spaced 130 feet apart pumping at a combined rate of 280 gpm.
- For the lower zone, two wells northwest of the upper zone wells spaced 400 feet apart pumping at a combined rate of 400 gpm.

*Ammonia production < 500-700 gallons from production*

## Summary

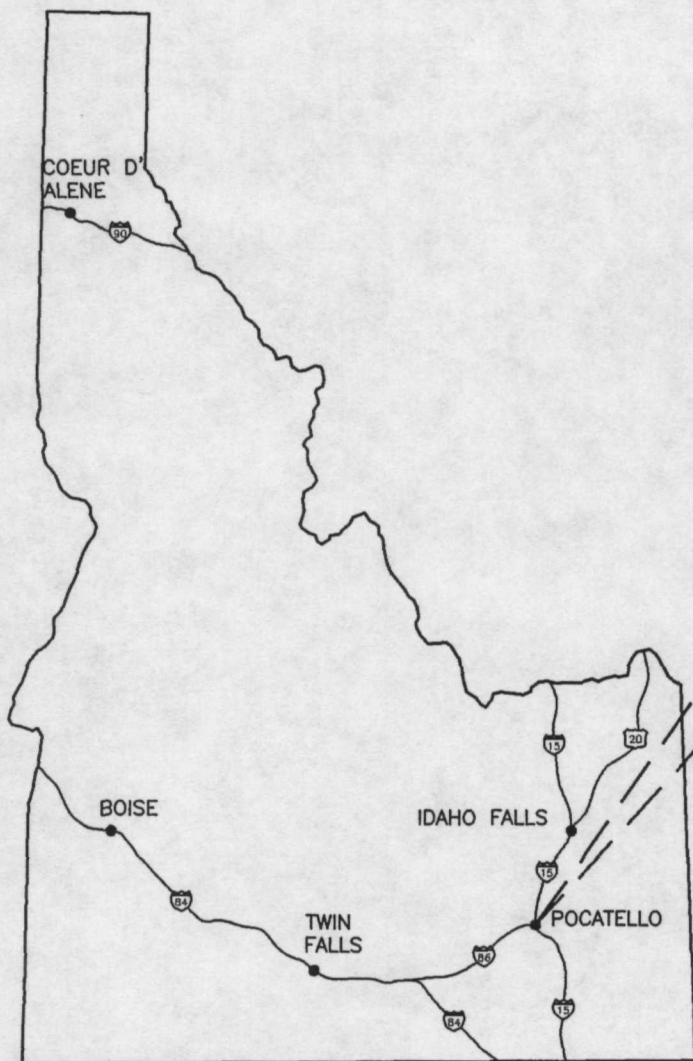
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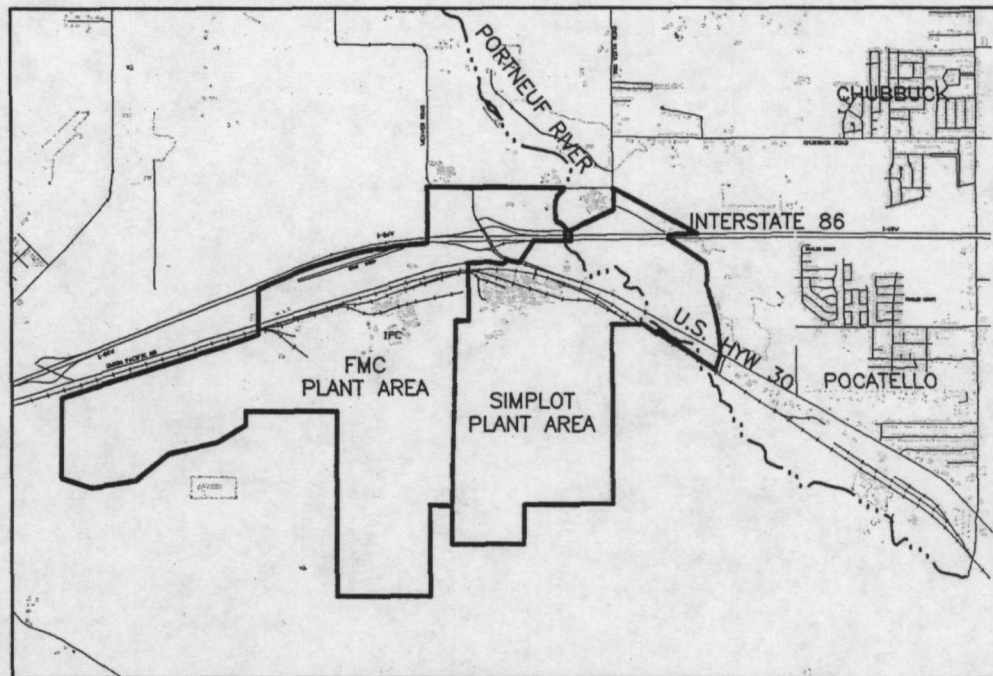
- Groundwater Extraction
- Dewatering Pit
- Gypsum Stack Roads
- Former East Overflow Pond
- Groundwater Monitoring
- Simplot Plant Area Institutional Controls

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The following pages provide a summary of each element of work.



IDAHO



EASTERN MICHAUD FLATS  
SUPERFUND SITE VICINITY

**SIMPLOT PLANT AREA  
EASTERN MICHAUD FLATS  
SUPERFUND SITE  
POCA TELLO, IDAHO**

GROUNDWATER EXTRACTION REMEDIAL DESIGN REPORT

FIGURE 1

**SITE LOCATION MAP**

|                   |                     |
|-------------------|---------------------|
| PROJECT: 010121.1 | DATE: JULY 2002     |
| REV:              | BY: RHF CHECKED: AC |

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## Groundwater Extraction

### Overview of Don Plant Process

- The Don Plant produces phosphoric acid and a variety of liquid and solid fertilizers. Plant production began in 1944 with a single superphosphate fertilizer and has grown to 12 principal products, including five grades of solid fertilizer and four grades of liquid fertilizer.
- Principal raw materials are phosphate ore (transported from the Smoky Canyon Mine by slurry pipeline, since 1991), sulfur and ammonia.
- In the process, the phosphate ore is digested with sulfuric acid to produce phosphoric acid. The phosphoric acid is a product and is also used to generate other fertilizer products.
- The main byproduct of ore digestion is gypsum (calcium phosphate). The gypsum is pumped in slurry form to the gypsum stack.
- A generalized water balance for the plant is as follows (see attached figure):

#### Inputs

- 3 production wells (4,300 gpm)
- Ore Slurry (220 gpm)
- Return from gypsum stack (1,200 gpm)

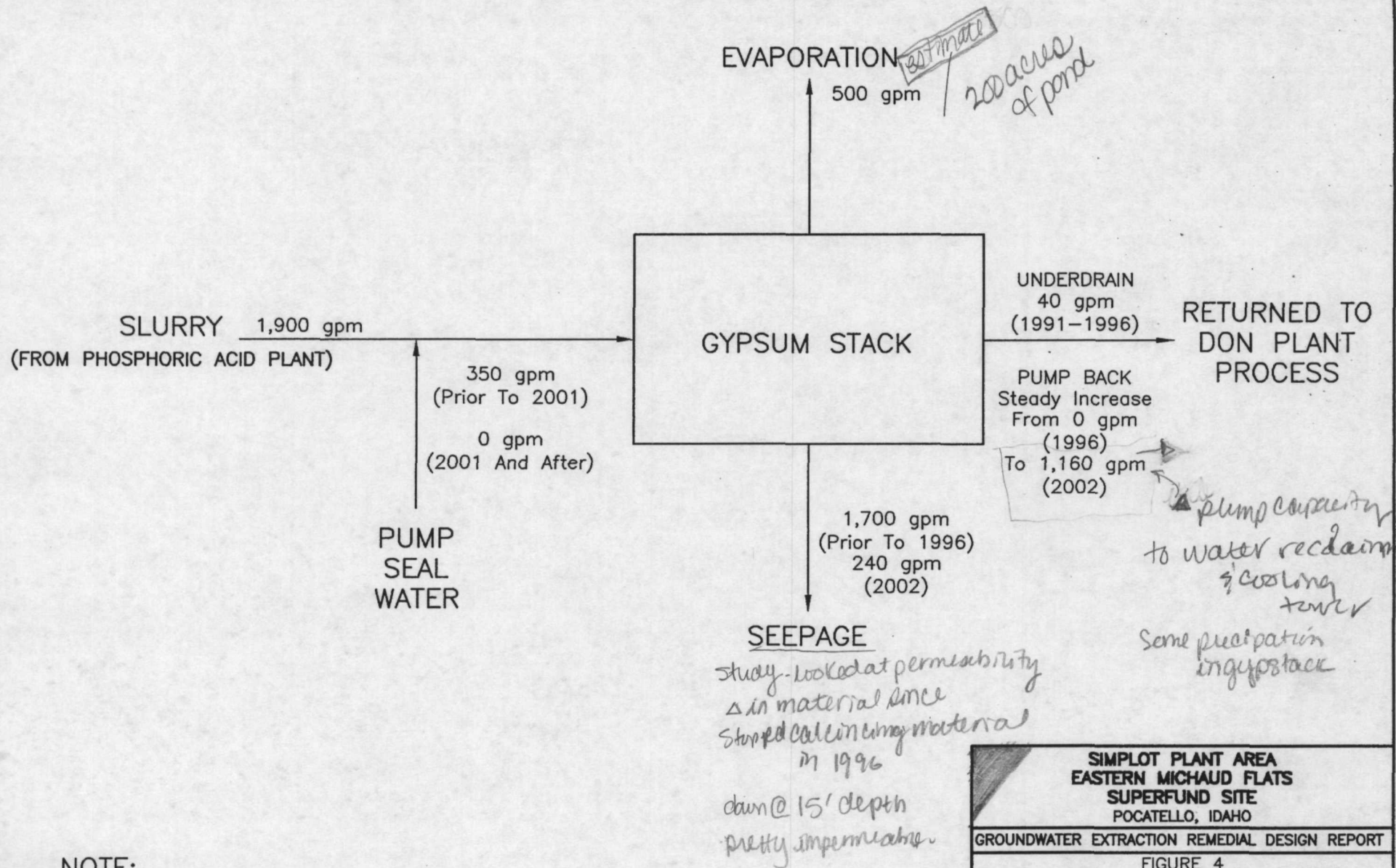
#### Outputs

- Slurry to gypsum stack (1,900 gpm)
- Irrigation water (800 gpm)
- Emissions to air
- Water in products

evapotranspiration rate?  
1900 gpm water / ph 2 /  
30% solids to gypsum stack -

## OVERVIEW OF GYPSTACK OPERATIONS

- The stack has three separate cells:
  - Lower stack
  - Eastern cell on upper stack
  - Western cell on upper stack
- During the Remedial Investigation (RI) only the upper stack was in use. The lower stack was returned to service around 1994 when Simplot implemented a new, ditch-rimming method of operating the stack.
- Previously slurry was applied to the two upper cells on an annual cycle. With the ditch-rimming method slurry is now applied to each of the cells on a rotating six-week schedule.
- Water sent to the stack is:
  - Collected and returned to the Don Plant
  - Evaporates
  - Seeps to groundwater
- Operational changes have decreased the total seepage to groundwater through
  - Ditch-rimming
  - Process changes due to pipeline ore delivery produce gypsum with lower permeability
  - Changes in way slurry pump seals are operated
- Seepage has reduced such that the area of ponded water has increased from 10-15 acres to about 200 acres.
- Simplot currently has to pump water from the ponded areas back from the Don plant at a rate of 1,160 gpm. Prior to 1996 no water was pumped back.
- Prior to 1996, seepage to groundwater was estimated at 1,700 gpm. Since 1996 seepage has decreased and is currently estimated at around 250 gpm (see figure).



**NOTE:**

1. THE FLOWS SHOWN FOR SLURRY, PUMP SEAL WATER, AND RETURNED TO DON PLANT PROCESS ARE RELATIVELY ACCURATE (BASED ON MEASUREMENTS, PUMP CAPACITIES, ETC). THE FLOWS FOR EVAPORATION AND SEEPAGE ARE ESTIMATES.

|  |                      |
|--|----------------------|
| SIMPLLOT PLANT AREA<br>EASTERN MICHAUD FLATS<br>SUPERFUND SITE<br>POCATELLO, IDAHO |                      |
| GROUNDWATER EXTRACTION REMEDIAL DESIGN REPORT                                      |                      |
| FIGURE 4   |                      |
| GYPSUM STACK<br>WATER BALANCE SCHEMATIC  |                      |
| PROJECT: 010121.2  | DATE: JUNE 2002      |
| REV:   | BY: SCG CHECKED: DEP |
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## Site Hydrogeologic Setting

- Site is divided into two hydrogeologic zones (see figures):

### Bannock Range (beneath Stack)

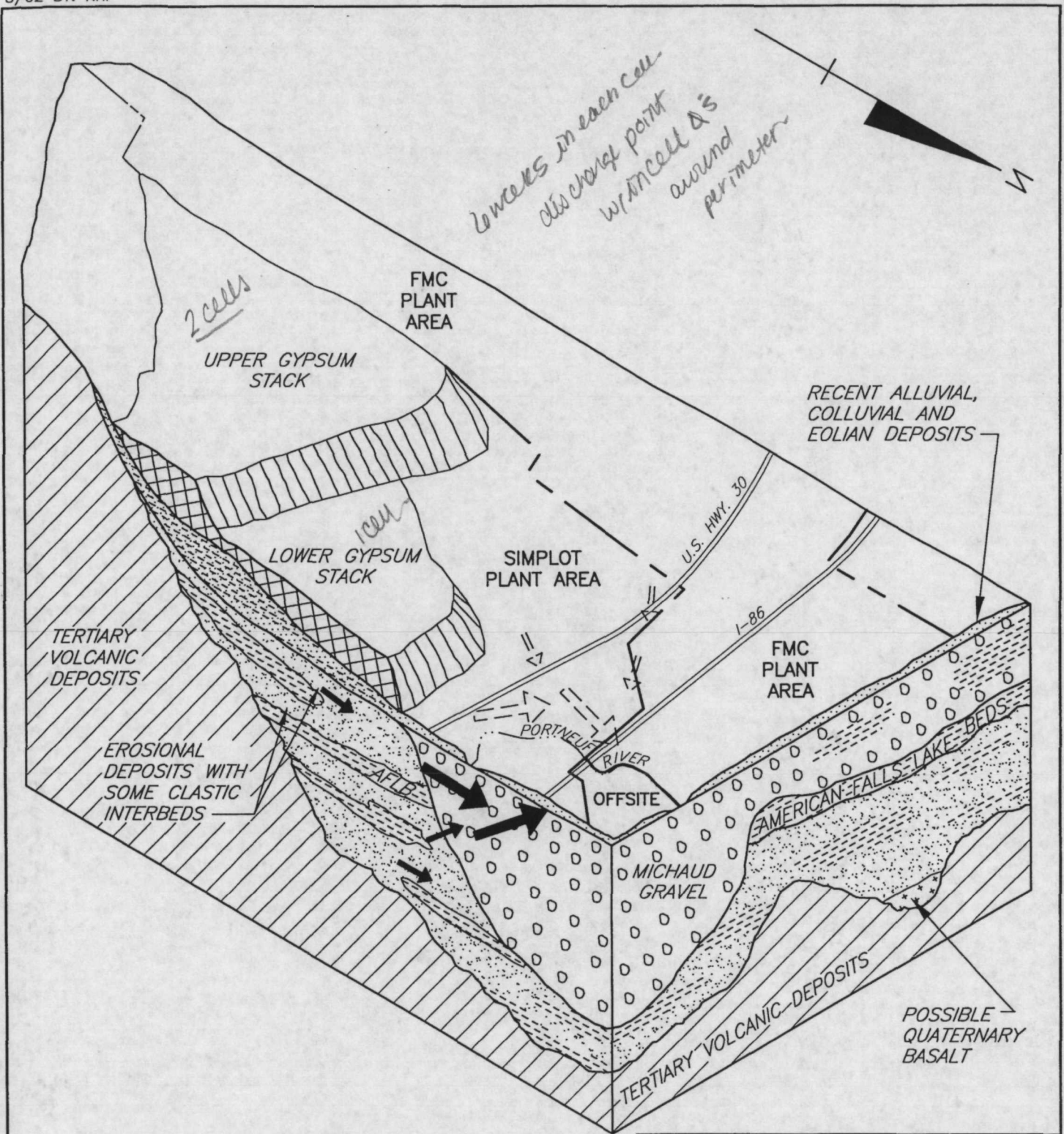
- Volcanic bedrock with interbeds of sand and gravel from erosion of bedrock in upgradient areas
- No distinct aquifer zones, but groundwater occurs in alluvial channels and interbeds
- A bedrock ridge directs the groundwater toward the east and west
- West side groundwater follows a buried relict channel filled with alluvial (gravel) material to the west side of the Don Plant
- East side groundwater is not confined to a drainage channel and covers a wider area flowing to the east side of the Don Plant.

### Michaud Flats (Beneath Don Plant and North)


- Snake River Plain basalts overlain by volcanic gravel. Above the gravels are fine-grained materials known as American Falls Lake Beds (AFLB).
- The AFLB serves as a confining layer that separates the Michaud Flats unit beneath the Don Plant into an upper zone and a lower zone.
- North of the Don Plant the AFLB confining layer is absent and has been replaced by the coarse-grained Michaud Gravels (gravels, cobbles and boulders).
- Modeling from the RI showed that the plant production wells capture a significant portion of the confined lower zone groundwater.
- Lower zone groundwater not captured flows up into the upper zone, mixes with shallow groundwater and the larger flux of groundwater from the Michaud Gravels and migrates north to springs along the Portneuf River.

Highest permeability near fence line 1.5 ft  
fence line 200 ft/day (308 / well # 343)  
lower permeability zone 800-900 ft/day  
near Portneuf 200,000 ft/day

Silt - 20' effective confining layer -



**LEGEND:**

 GENERAL GROUNDWATER FLOW DIRECTIONS

|   |                     |
|---|---------------------|
| SIMPLOT PLANT AREA<br>EASTERN MICHAUD FLATS<br>SUPERFUND SITE<br>POCATELLO, IDAHO |                     |
| GROUNDWATER EXTRACTION REMEDIAL DESIGN REPORT                                     |                     |
| FIGURE 5  |                     |
| GEOLOGIC BLOCK DIAGRAM  |                     |
| PROJECT: 010121.1   | DATE: JULY 2002     |
| REV:  | BY: RHF CHECKED: AC |
| MFG, Inc.<br>consulting scientists and engineers                                  |                     |

## **Distribution of Constituent in Groundwater**

An exhaustive investigation of the site environmental conditions was performed during the RI phase of the project from 1992 to 1994. This investigation included quarterly sampling of groundwater from 77 wells, and these samples were typically analyzed for 22 heavy metals, 4 radionuclides and other analytes.

After the RI period, Simplot continued to perform groundwater monitoring in the Simplot Plant Area and at Batiste Spring on a semi-annual basis.

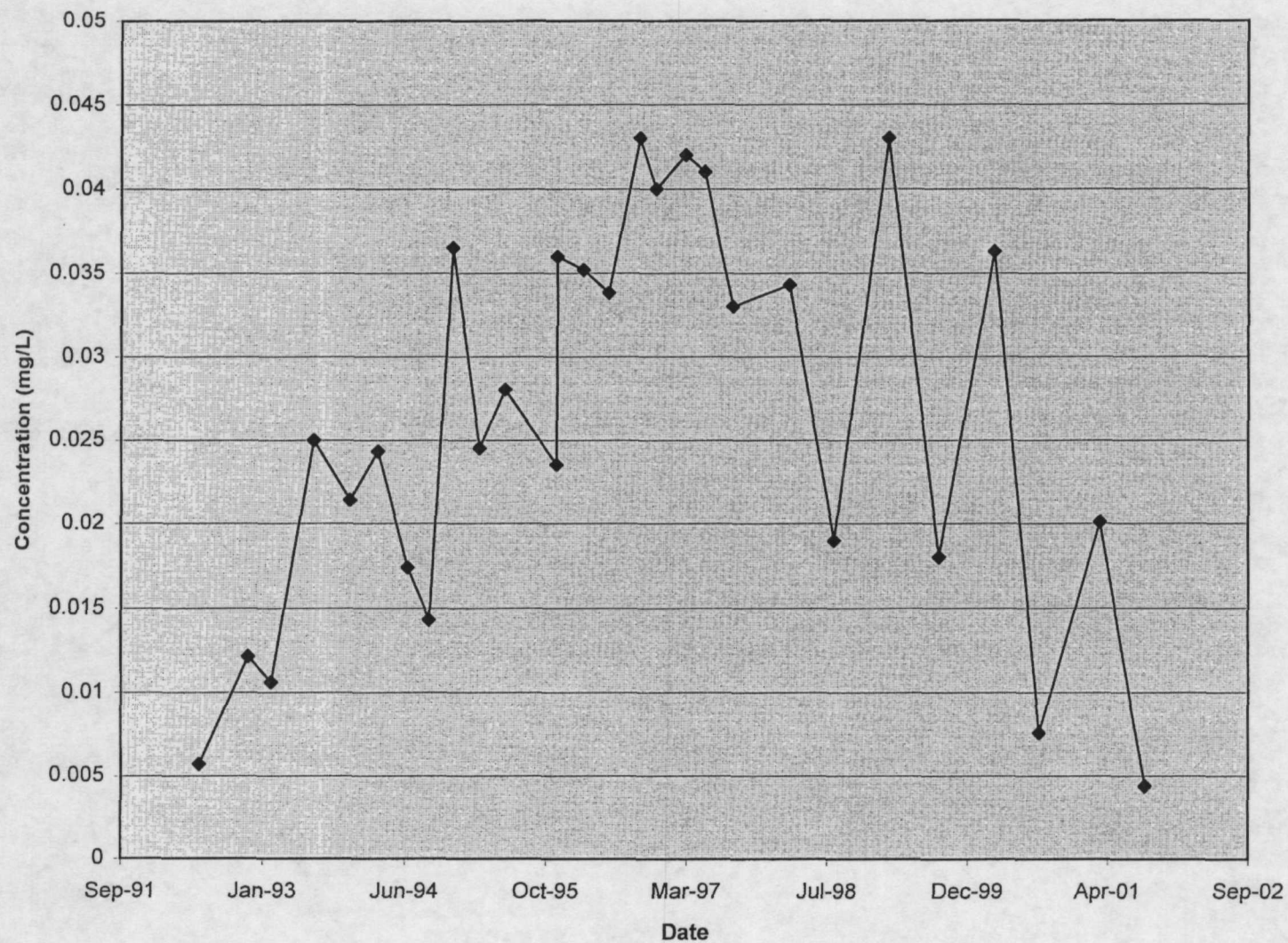
In the Simplot Plant Area, the gypsum stack and the East Overflow pond were identified as sources of constituents to groundwater. The gypsum stack was found to have affected groundwater quality over a relatively large area while the East Overflow Pond (an unlined pond used for collection of process water during plant upsets) had a more localized effect (primarily in the area of paired wells 317 and 318), but resulted in higher constituent concentrations in groundwater. Use of the East Overflow Pond was discontinued in 1993 and the pond was replaced with a new, lined impoundment.

Groundwater from beneath the gypsum stack flows along the east and west sides of a buried volcanic ridge and into the Don Plant Area. Beneath and immediately downgradient of the Don Plant, mixing of upper and lower groundwater with the larger flux of groundwater from the Michaud Gravels reduces the constituent concentrations, prior to discharge to the Portneuf River.

Historically, groundwater discharged at Batiste Spring, to the north of the Simplot Plant Area, has met water quality standards (primarily Maximum Contaminant Levels (MCLs)) for arsenic. However, in February 2002, the arsenic MCL was lowered from 0.05 mg/L to 0.01 mg/L which is approximately equal to the background value of 0.018 mg/L. By comparison, arsenic concentrations at Batiste Spring are typically lower than 0.05 mg/L but greater than 0.01 mg/L.

Overall, groundwater concentrations are similar from 1995 to 2001, with the exception of the area down gradient of the lower stack which was brought back into use in 1994. In the joint fenceline area, data indicate the effect of non-Simplot sources.

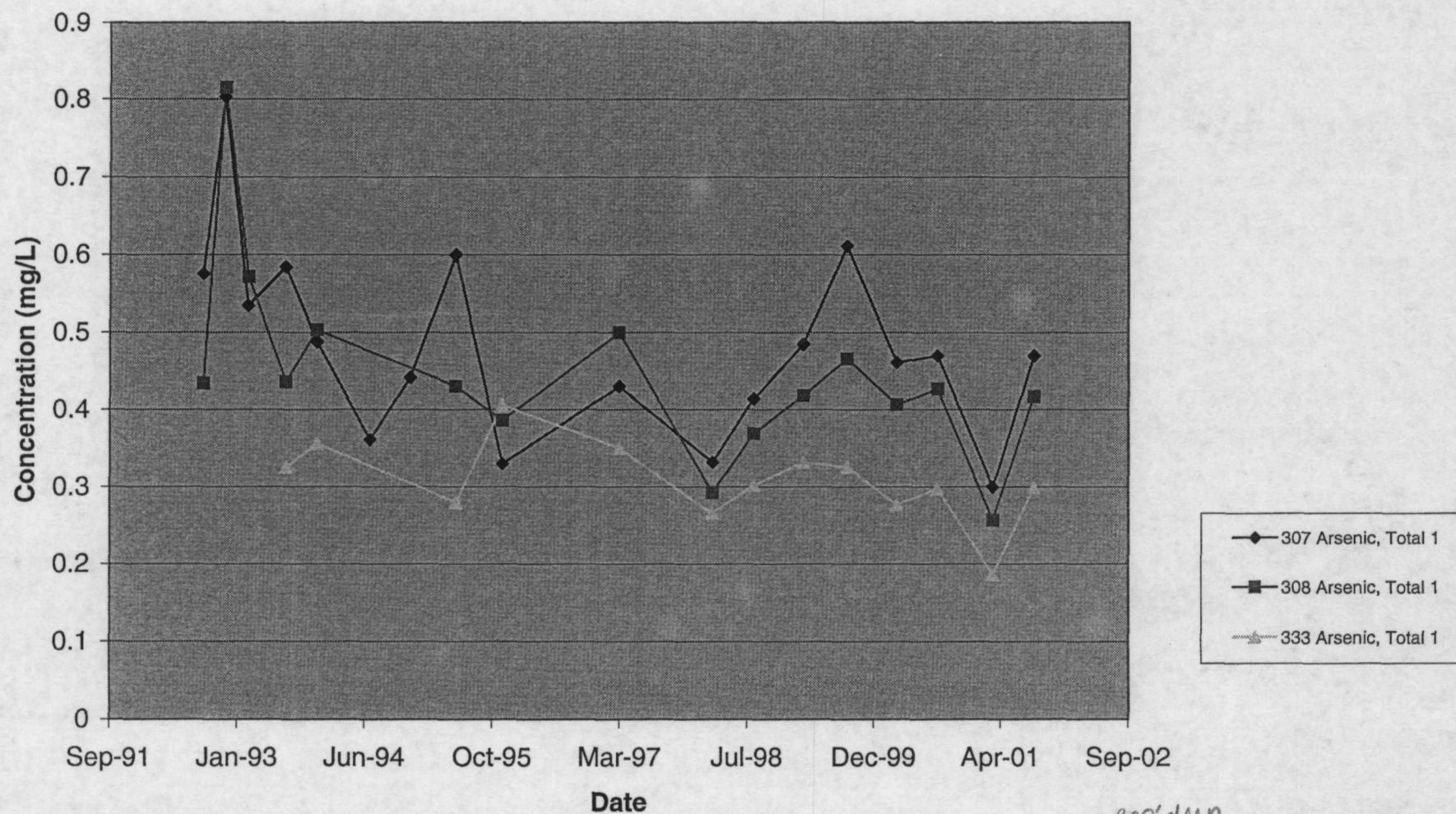
**Figure 16**  
**Arsenic Concentrations at Batiste Spring**





DOWNGRADIENT OF THE GYPSUM STACK - JOINT FENCELINE AREA

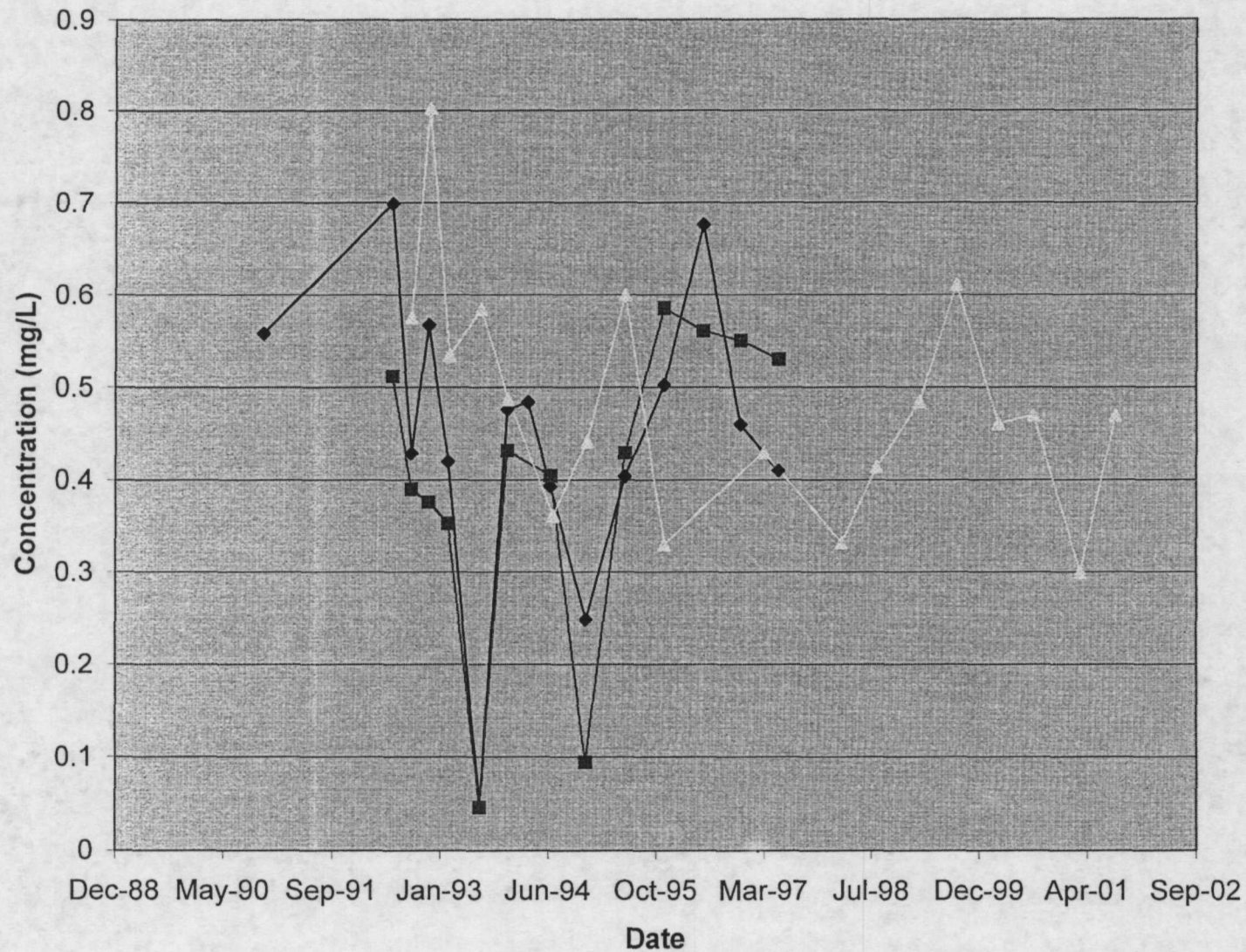
Concentration vs. Time



200' deep

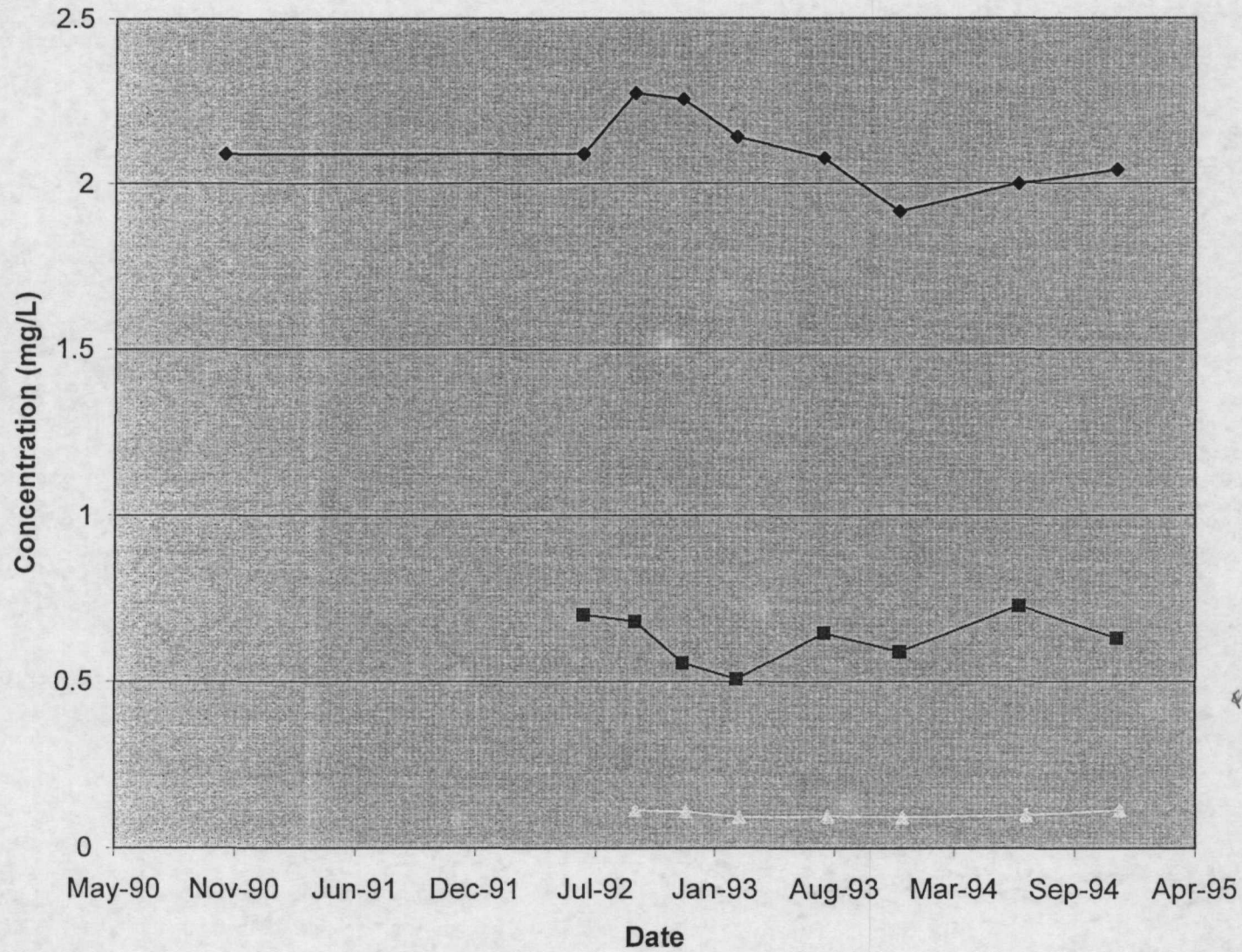
first saturated zone -

# Concentration vs. Time





## Concentration vs. Time



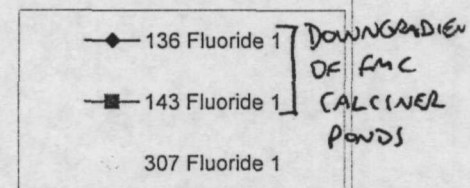
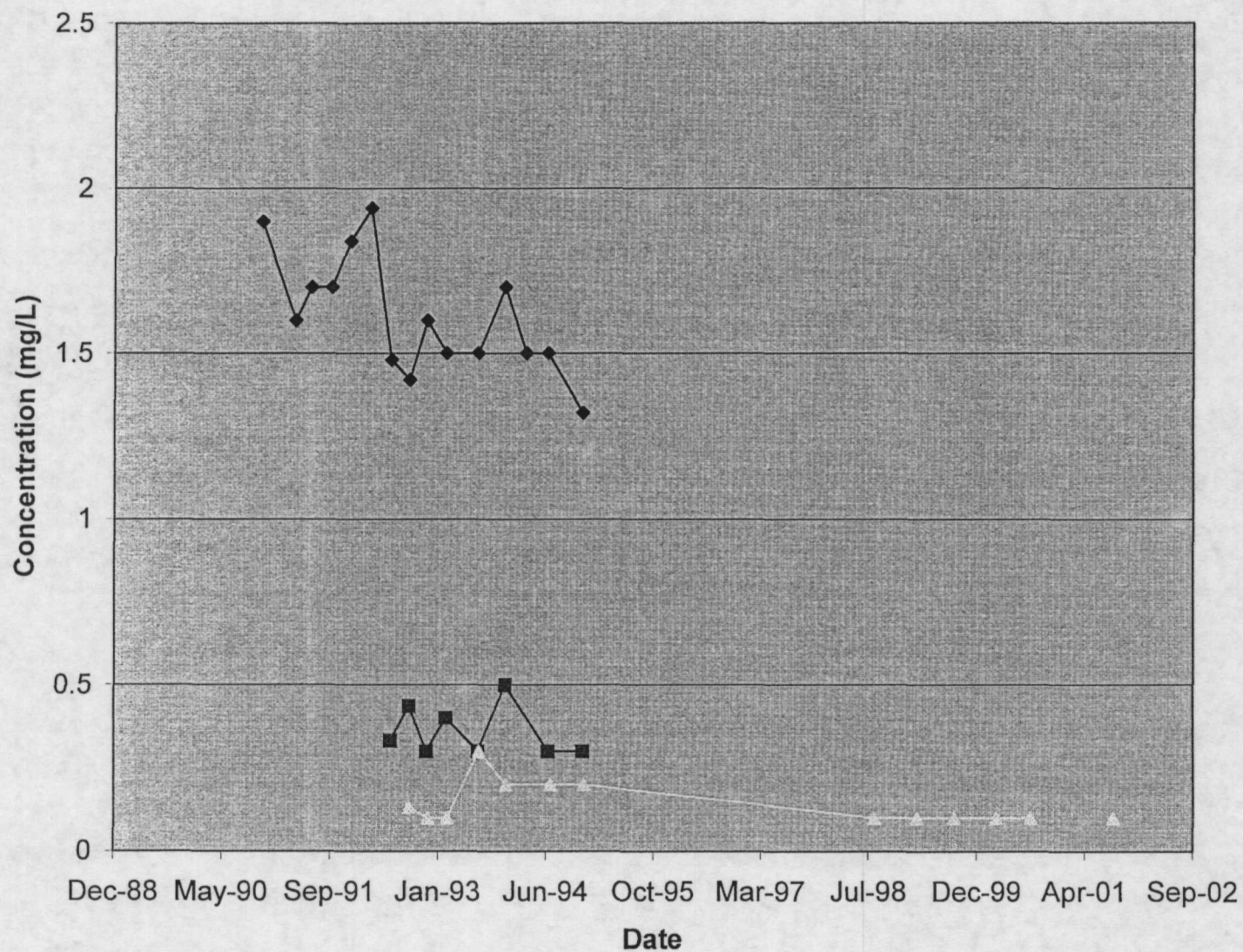
*FMC status  
upstack  
influenced wells.*

- ◆ 136 Manganese, Total 1
- 143 Manganese, Total 1
- ▲ 307 Manganese, Total 1

*Downgrad  
of FMC  
Cabrero  
Ponds*

JOINT FENCELINE AREA

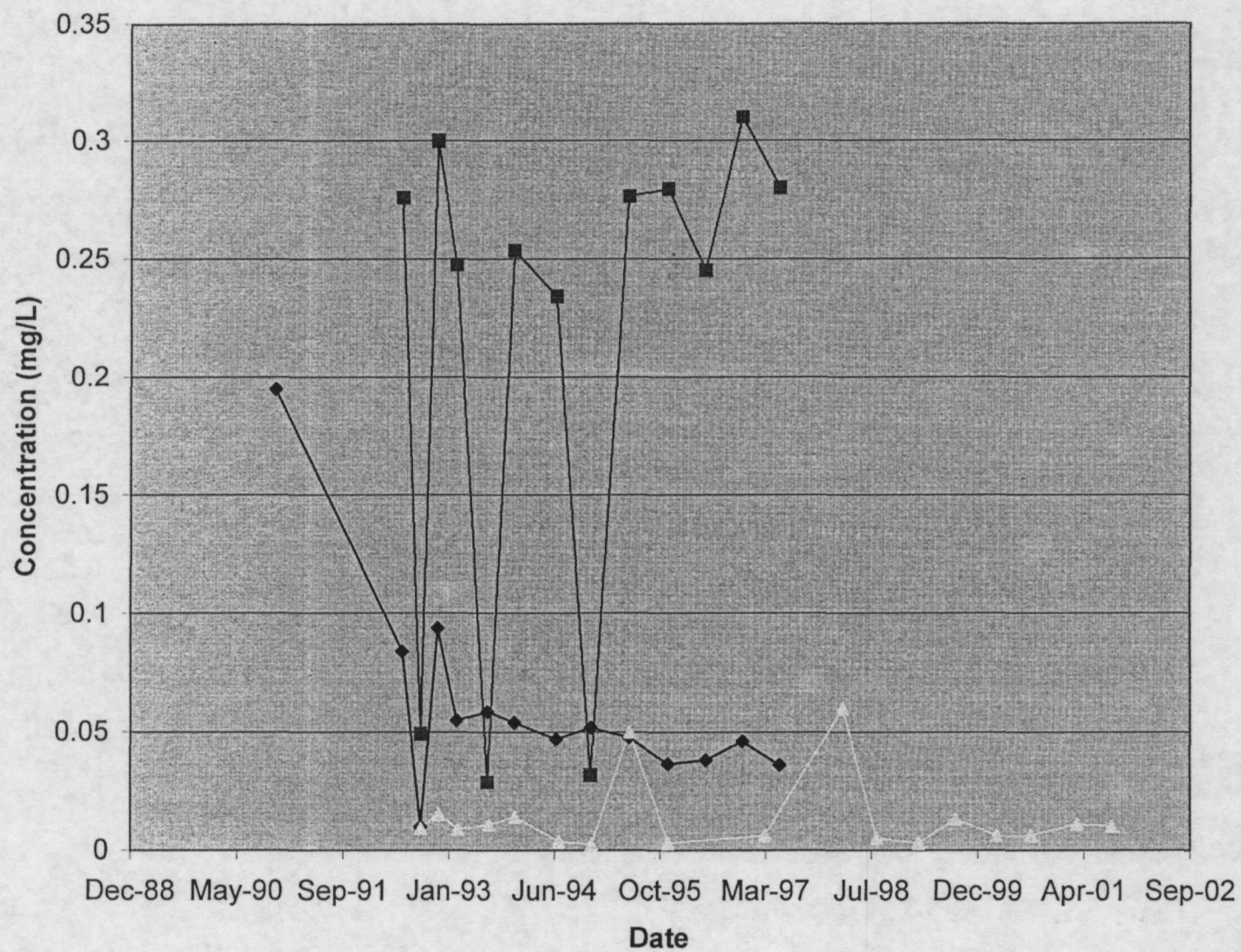
## Concentration vs. Time





JOINT FENCELINE AREA

## Concentration vs. Time

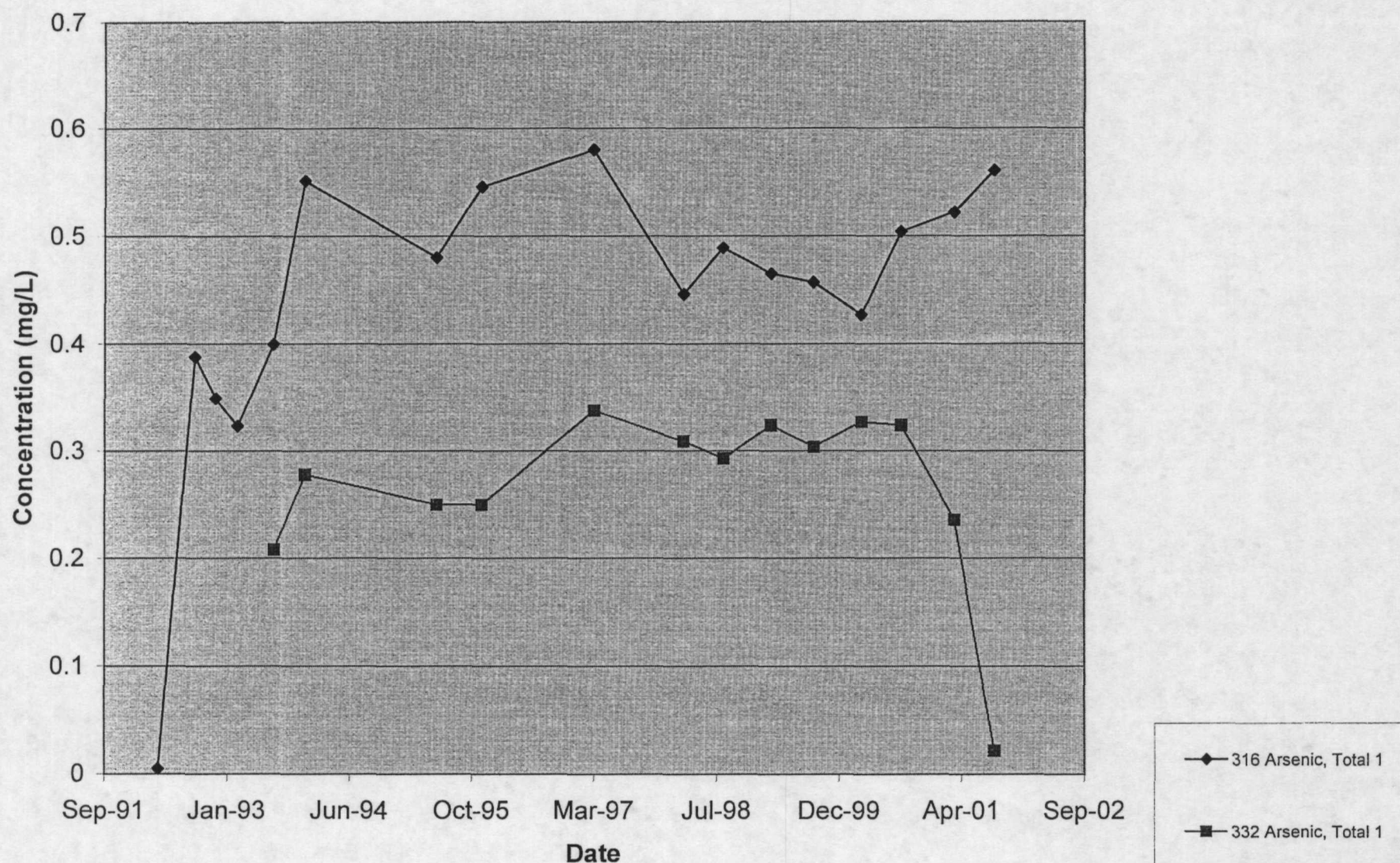


136 Selenium, Total 1  
143 Selenium, Total 1  
307 Selenium, Total 1

DOWN  
GRADIENT  
OF RMC  
CALCINER  
PONDS

EAST PLANT AREA

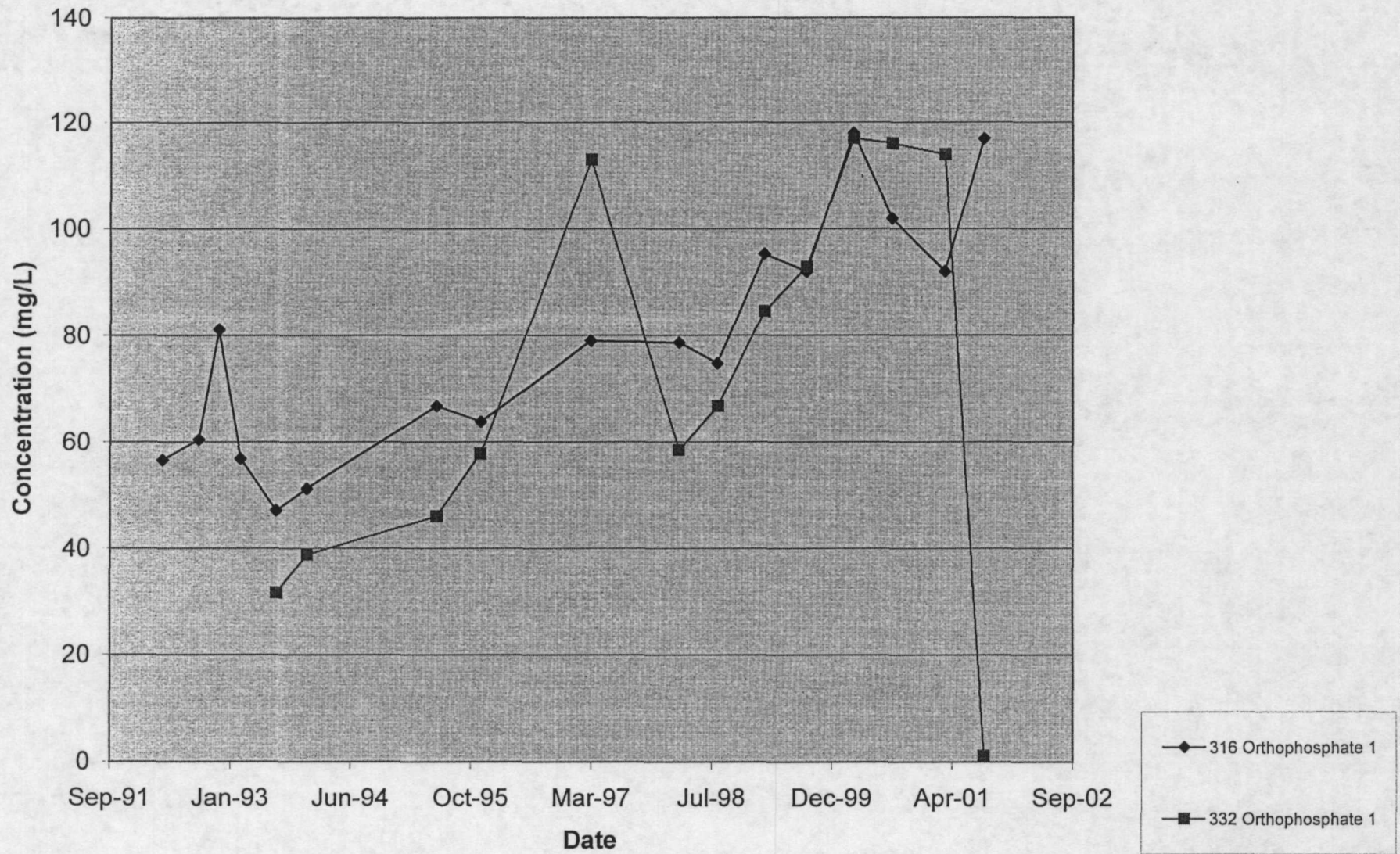
## Concentration vs. Time





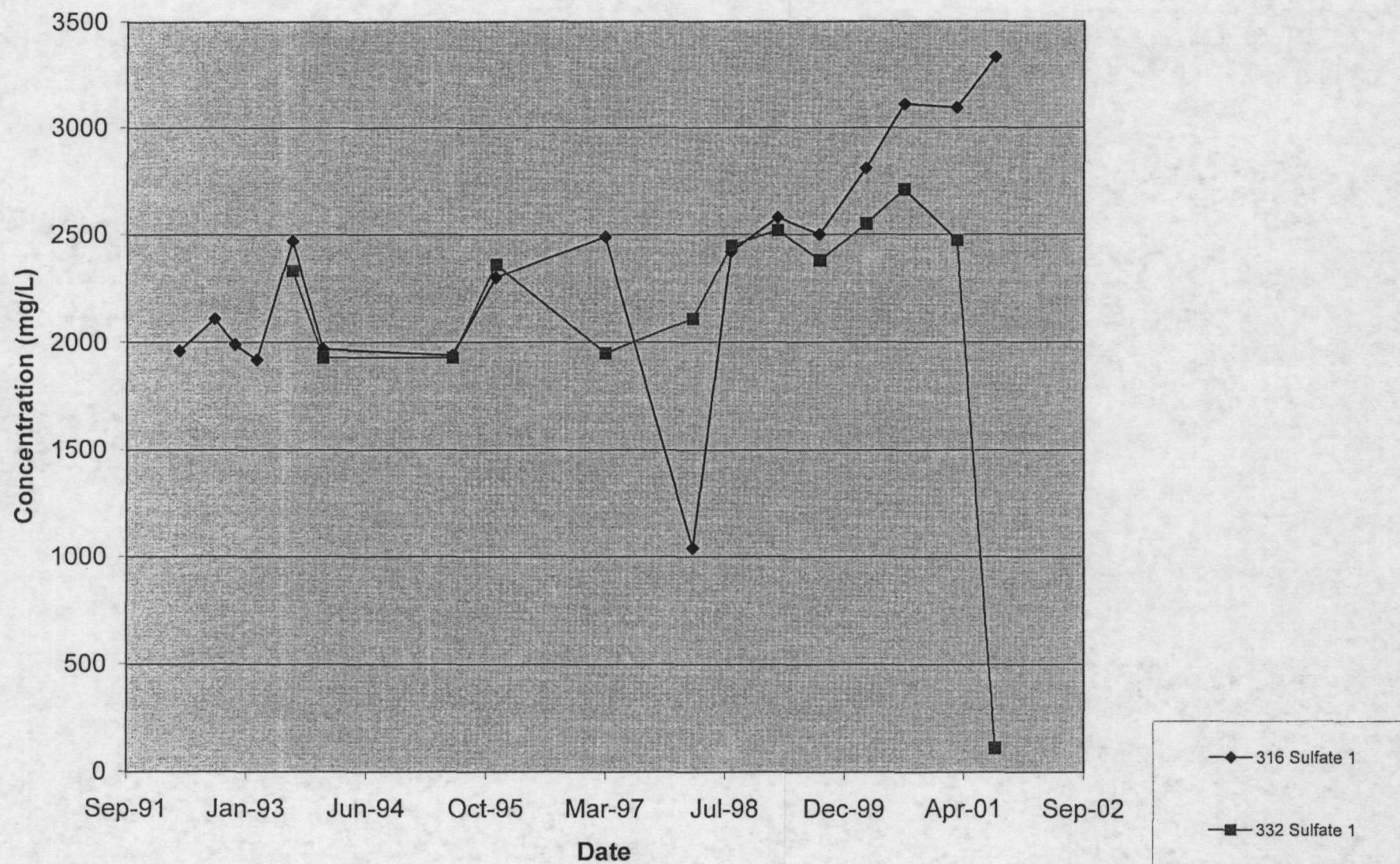
EAST PLANT AREA

### Concentration vs. Time



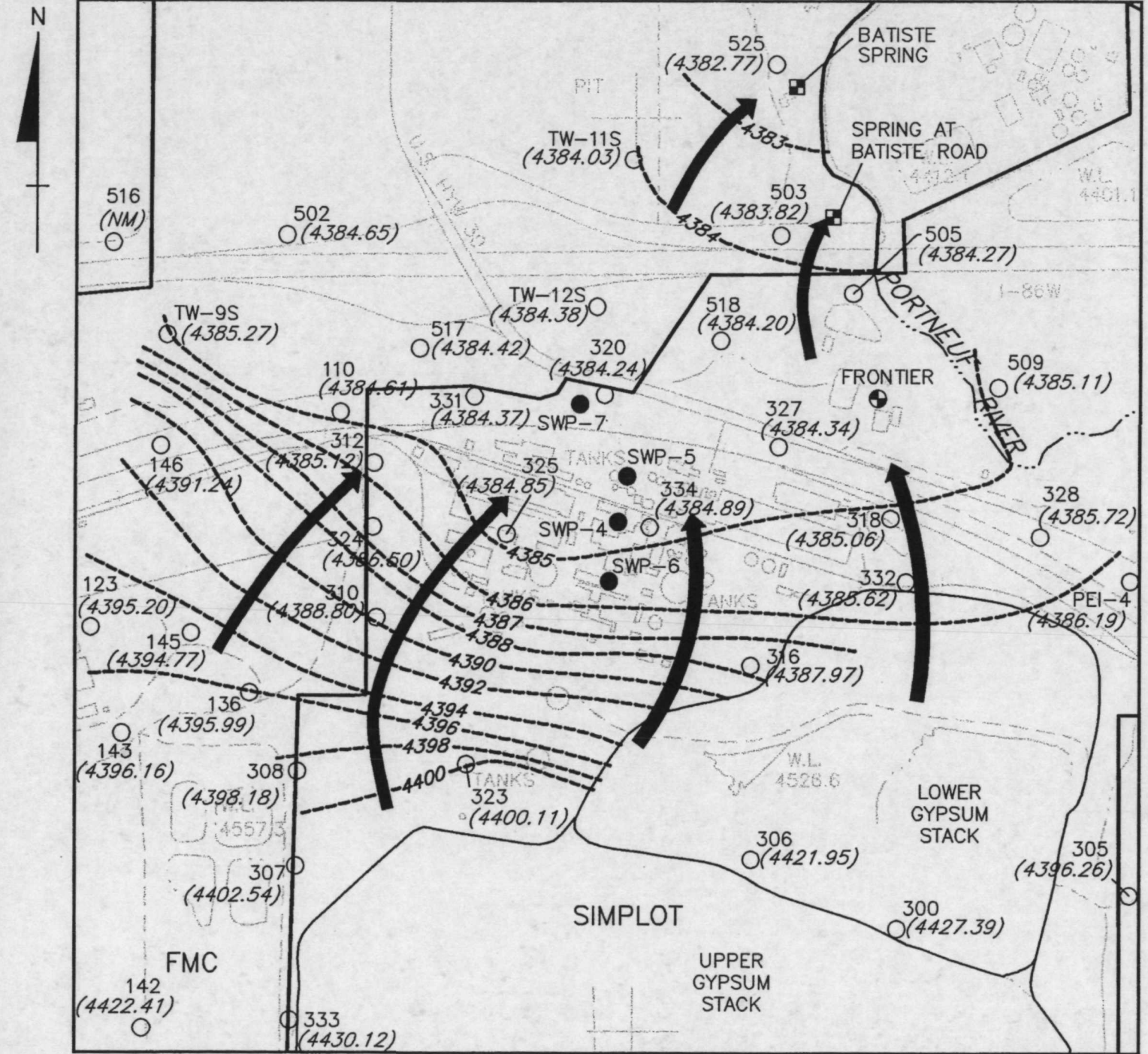
EAST PLANT AREA

## Concentration vs. Time





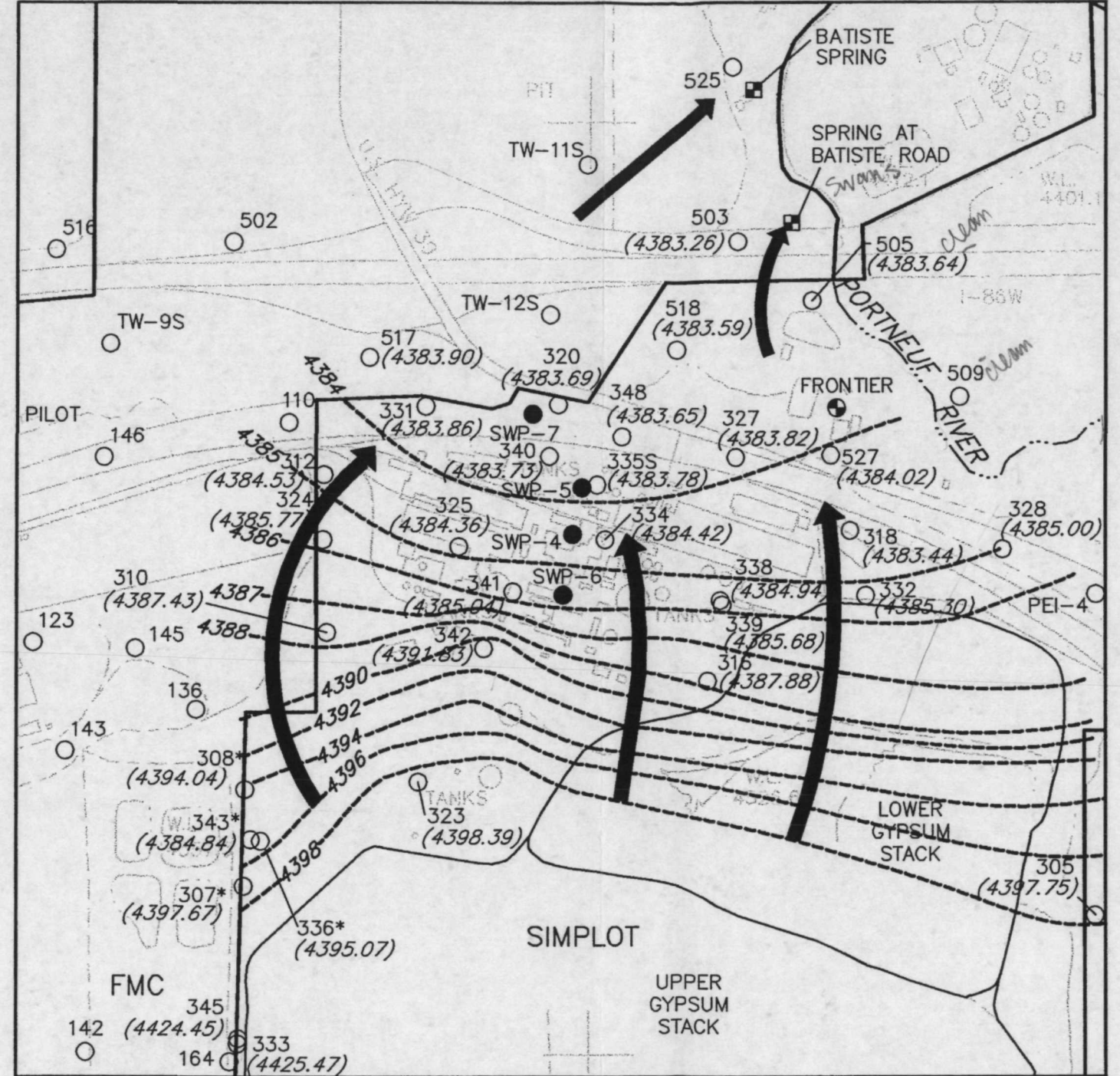
FIELD D:\0121\0121-6.dwg 010212.2 6/13/02 12:58 pm  
Xrefs: (none)  
Insp: (none)  
Plot Date: 6/13/02  
Plot Time: 1:23:03



UPPER ZONE POTENTIOMETRIC SURFACE 1995

LEGEND:

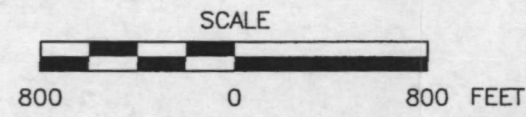
- |           |   |                  |   |
|-----------|---|------------------|---|
| 346 ○     | GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION                  | --- 4388 ---     | LINE OF EQUAL WATER LEVEL ELEVATION (CONTOUR INTERVAL VARIABLE) |
| (4397.67) | WATER LEVEL ELEVATION MEASURED NOVEMBER 1995 AND AUGUST 2001 (ft MSL) | FRONTIER ●       | WATER SUPPLY WELL LOCATION AND DESIGNATION                      |
| →         | GENERAL DIRECTION OF GROUNDWATER FLOW                                 | SWP-5 ●          | PRODUCTION WELL LOCATION AND DESIGNATION                        |
|           |   | BATISTE SPRING ■ | NATURAL SPRING  |



UPPER ZONE POTENTIOMETRIC SURFACE 2001

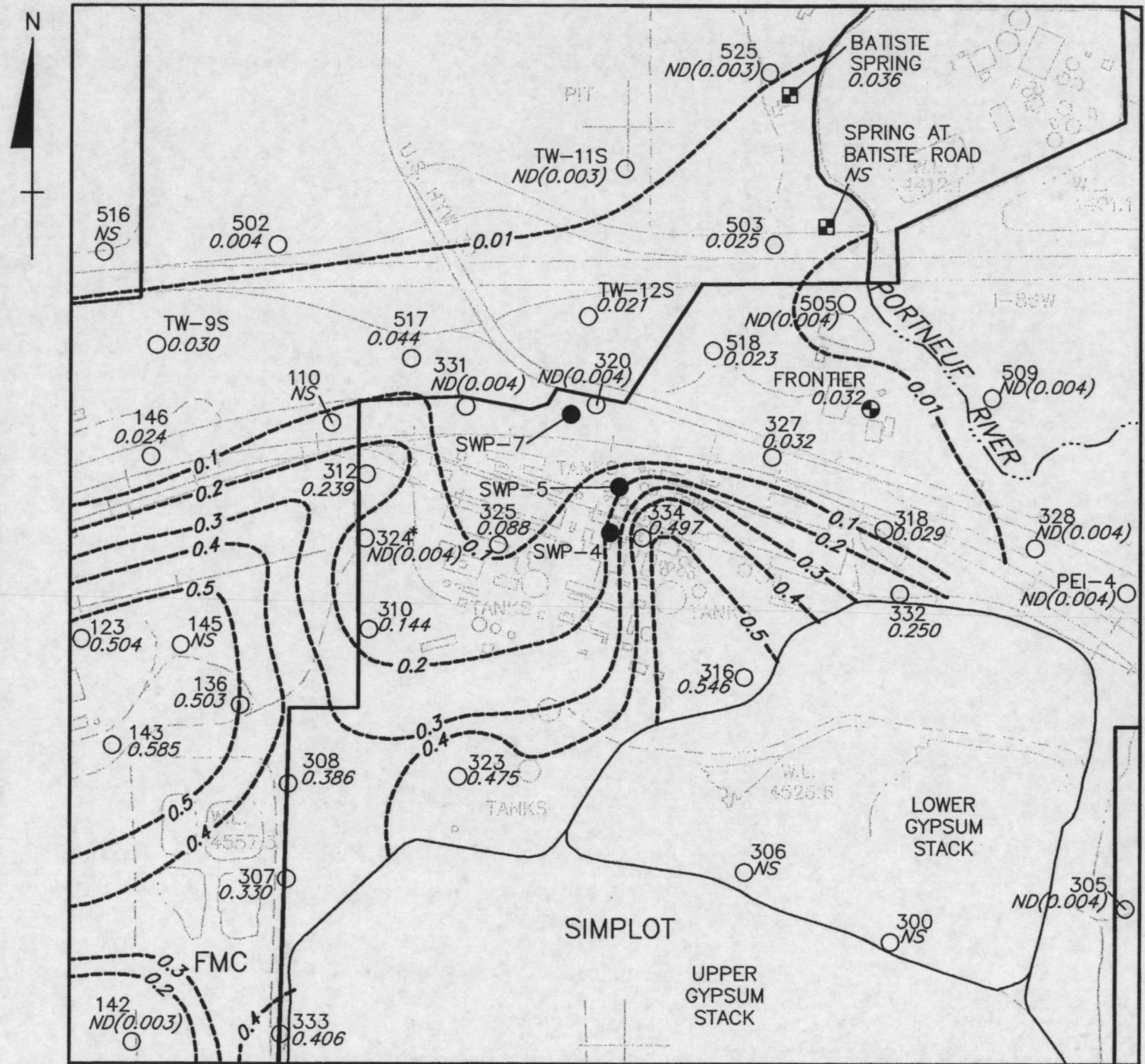
NOTE:

\*-WATER LEVEL AFFECTED BY PUMPING AT WELL 343.



|   |                      |
|---|----------------------|
| SIMPLOT PLANT AREA<br>EASTERN MICHAUD FLATS<br>SUPERFUND SITE<br>POCATELLO, IDAHO       |                      |
| GROUNDWATER EXTRACTION REMEDIAL DESIGN REPORT   |                      |
| FIGURE 7  |                      |
| UPPER ZONE POTENTIOMETRIC SURFACE<br>AND GROUNDWATER FLOW DIRECTION<br>MAPS (1995/2001) |                      |
| PROJECT: 010121.2   | DATE: MAY 2002       |
| REV:  | BY: SCG CHECKED: DEP |
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ARSENIC ISOCONCENTRATION LINES 1995

LEGEND:

- 346 ○ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- 0.497 CONCENTRATION IN Mg/L
- ND(0.040) ANALYTE NOT DETECTED AT A CONCENTRATION ABOVE THE VALUE INDICATED IN THE PARENTHESIS

0.2 ---

FRONTIER

SWP-5

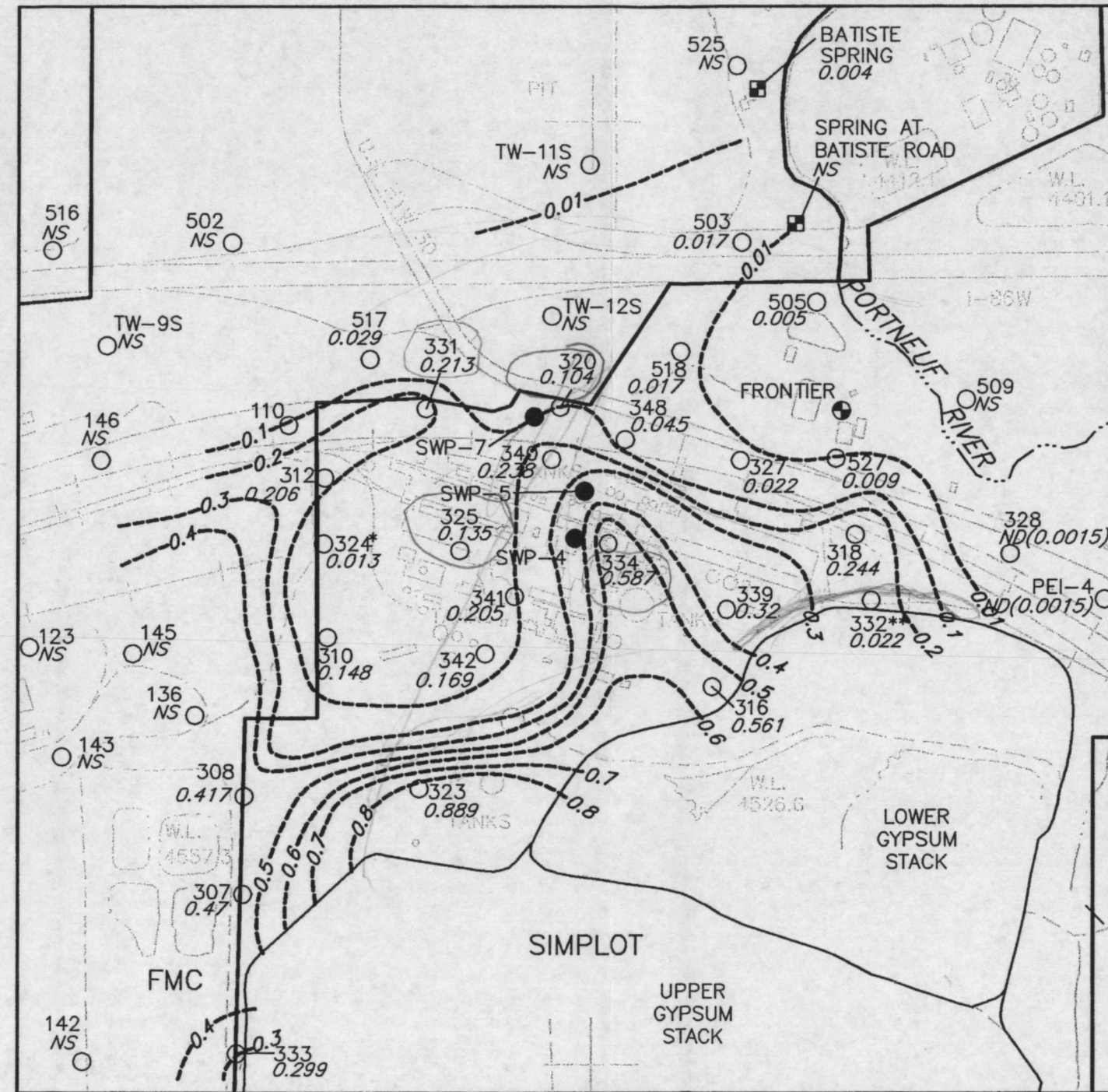
BATISTE SPRING

ISOCONCENTRATION LINE (CONTOUR INTERVAL VARIABLE)

WATER SUPPLY WELL LOCATION AND DESIGNATION

PRODUCTION WELL LOCATION AND DESIGNATION

NATURAL SPRING



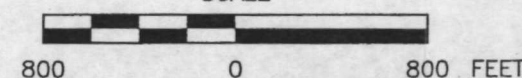
ARSENIC ISOCONCENTRATION LINES 2001

NOTE:

\*-WELL 324 NOT CONSIDERED IN DEVELOPING CONTOURS AS THIS WELL'S SCREEN EXTENDS INTO THE LOWER ZONE.

\*\*-UNUSUALLY LOW CONCENTRATIONS WERE REPORTED FOR WELL 332 IN AUGUST 2001. ISOCONCENTRATION CONTOURS REFLECT TYPICAL VALUES.

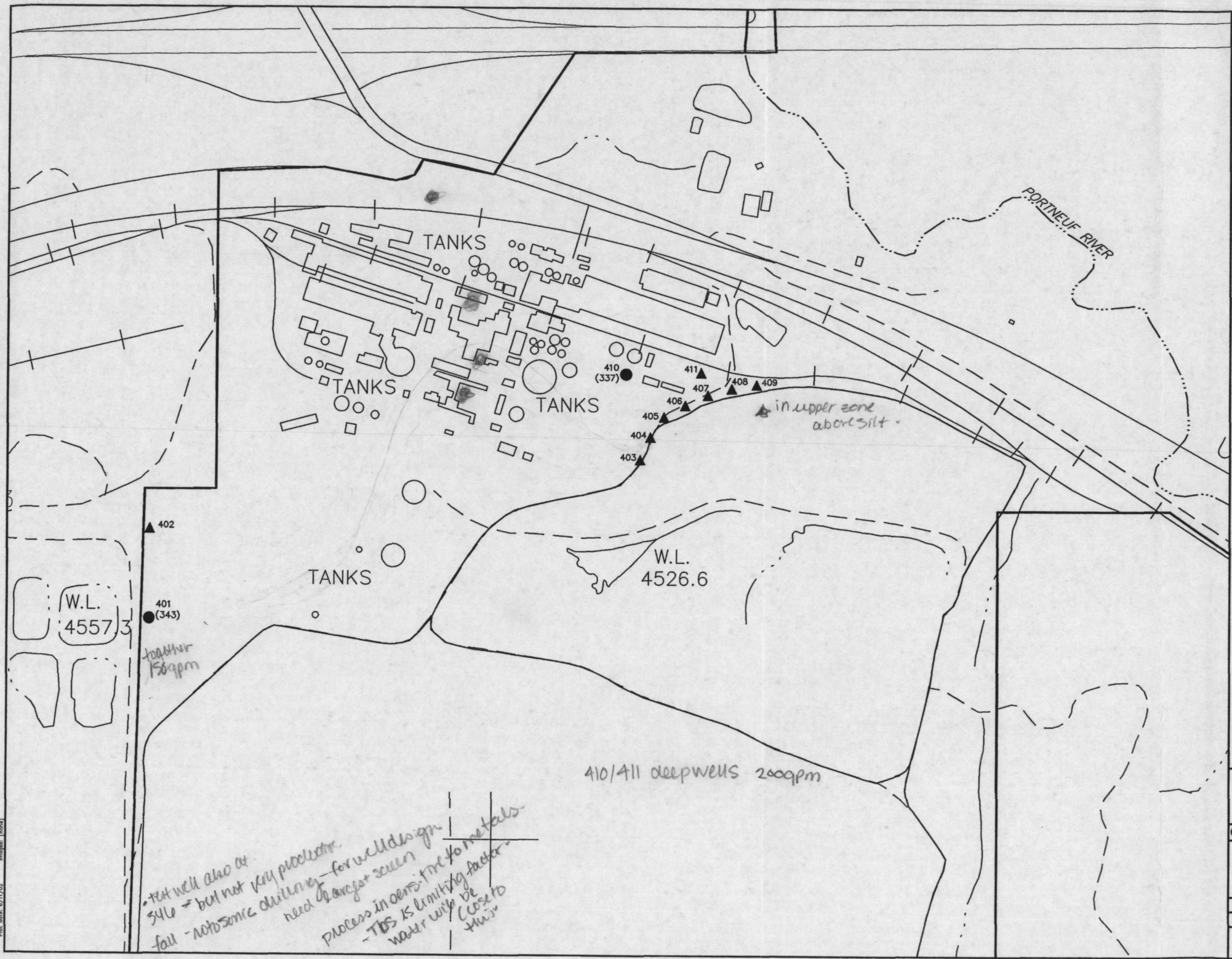
SCALE



|   |                      |
|---|----------------------|
| SIMPLOT PLANT AREA<br>EASTERN MICHAUD FLATS<br>SUPERFUND SITE<br>POCATELLO, IDAHO |                      |
| GROUNDWATER EXTRACTION REMEDIAL DESIGN REPORT                                     |                      |
| FIGURE 9  |                      |
| UPPER ZONE ARSENIC<br>ISOCONCENTRATION MAPS (1995/2001)                           |                      |
| PROJECT: 010121.2   | DATE: MAY 2002       |
| REV:  | BY: RHF CHECKED: DEP |
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Rev: (none)  
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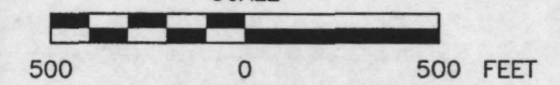


**LEGEND:**

- 403 ▲ NEW EXTRACTION WELL
- 402 ● EXISTING EXTRACTION WELL
- (346) PREVIOUS WELL DESIGNATION NUMBER

N

SCALE



**SIMPLOT PLANT AREA  
EASTERN MICHAUD FLATS  
SUPERFUND SITE  
POCATELLO, IDAHO**

GROUNDWATER EXTRACTION REMEDIAL DESIGN REPORT

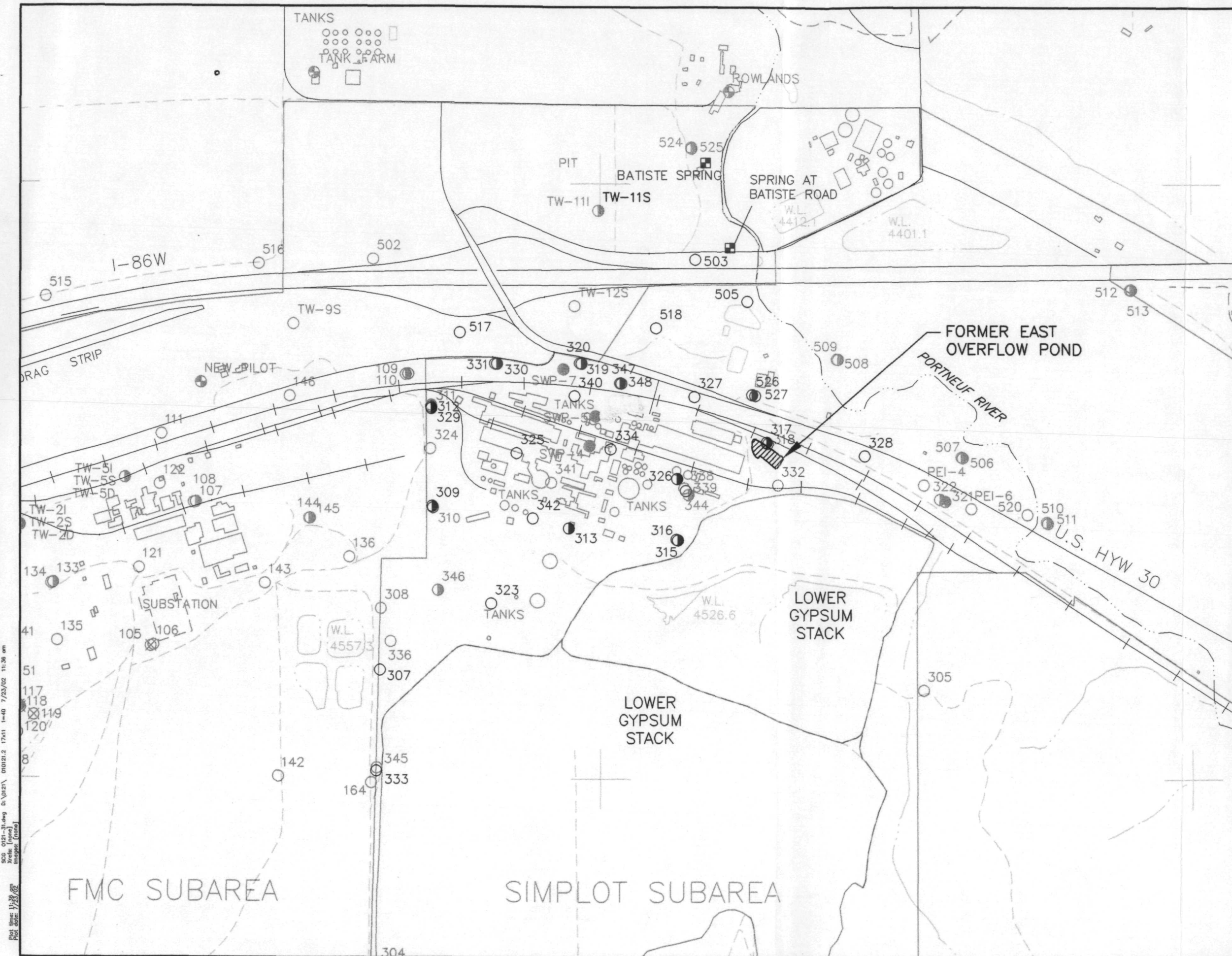
FIGURE 21

**EXTRACTION WELL LOCATIONS**

|                   |                     |
|-------------------|---------------------|
| PROJECT: 010121.2 | DATE: JULY 2002     |
| REV:              | BY: RHF CHECKED: AC |

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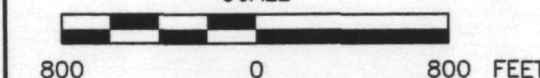
# **LEGEND:**

- SHALLOW MONITORING WELL
- ① DEEP MONITORING WELL
- ⊕ REPLACEMENT WATER SUPPLY WELL
- PRODUCTION WELL
- SPRING
- SPRING MONITORING LOCATIONS (POCs)
- PLANT AREA GROUNDWATER MONITORING LOCATIONS
- OTHER POTENTIAL SOURCE MONITORING LOCATIONS
- FORMER EAST OVERFLOW POND MONITORING LOCATIONS
- EXTRACTION WELL

N



SCALE



**SIMPLOT PLANT AREA  
EASTERN MICHAUD FLATS  
SUPERFUND SITE  
POCATELLO, IDAHO**

GROUNDWATER MONITORING REMEDIAL DESIGN REPORT

FIGURE 8

**SIMPLOT PLANT AREA GROUNDWATER  
MONITORING NETWORK**

PROJECT: 010121.2 DATE: JULY 2002  
REV: BY: RHF CHECKED: AC

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## Groundwater Monitoring

As described in the SOW the objective of groundwater monitoring is:

*"to collect sufficient data of adequate quality to evaluate the performance of the extraction system and other source control measures in reducing the extent and concentration of arsenic and other contaminants of concern [COCs] in groundwater in the Plant Area and in preventing migration of arsenic and other COCs into the Area at concentrations above MCLs [Maximum Contaminant Levels] or RBCs [Risk-Based Concentrations]. Where there is an MCL, the MCL shall control. Specifically, components of the monitoring program will provide data to document the effectiveness of the extraction system in capturing seepage from the gypsum stack, to track water quality in areas potentially affected by sources other than gypsum stack seepage, and to confirm the attainment of performance standards and the long-term effectiveness of the remedy."*

The performance standards for groundwater monitoring set out in the SOW are as follows:

- *Groundwater samples will be collected from wells on a quarterly basis for a period of five years and the samples analyzed for arsenic and other site related constituents. The specific wells to be monitored, the analytes, and the data evaluation procedures will be provided in the draft Groundwater Monitoring RDR.*
- *After the five-year period, the monitoring locations and frequency will be evaluated and monitoring will continue on at least a semiannual basis.*
- *Monitoring of Batiste Spring and other locations in the Area will be initiated on a quarterly basis at the time of system startup. After successful demonstration of compliance with the performance standard [for the extraction system], as described in Section III.D.4.b, samples will be collected semi-annually. The data evaluation procedures will be provided in the draft Groundwater Monitoring RDR.*

## Proposed Groundwater Monitoring Program

The proposed groundwater monitoring program contains 4 distinct components:

- Monitoring at Off-Plant Area locations (Batiste Spring and the Spring at Batiste Road) to demonstrate performance of the Simplot Plant Area groundwater remedy by comparison of arsenic concentrations with the MCL.
- Demonstrate the performance of the completed remediation at the Former East Overflow Pond through monitoring of groundwater quality at up gradient and down gradient locations at the East Overflow Pond; *monitoring point*
- Monitoring within the Simplot Plant Area to describe and track improvements in groundwater quality, which result from extraction system operation, as required by the SOW; and
- Additional voluntary monitoring to identify areas which may potentially be affected by sources other than gypsum stack seepage (i.e. in the Don Plant and non-Simplot sources in the joint fence line area). This monitoring is not required by the SOW, but expected to provide useful information in evaluating the overall performance of the groundwater remedy).

**TABLE 2**  
**Monitoring Parameters**

| Parameter                  | Analytical Method <sup>1</sup>        | Practical Quantitation Limit (PQL) |
|----------------------------|---------------------------------------|------------------------------------|
| <b>Field Measurements</b>  |                                       |                                    |
| pH                         | pH meter/electrometric                | ±0.1 pH unit                       |
| Specific Conductance       | Conductivity meter                    | 5 µmho/cm                          |
| Dissolved Oxygen           | D.O. meter                            | 0.1 mg/L                           |
| Turbidity                  | Nephelometer                          | 0.1 NTU                            |
| Temperature                | Thermometer                           | ±0.1°C                             |
| <b>Laboratory Analyses</b> |                                       |                                    |
| Total dissolved solids     | EPA 160.1                             | 10 mg/L                            |
| Total alkalinity           | EPA 310.1                             | 10 mg/L                            |
| Sulfate                    | EPA 375.2                             | 2.5 mg/L                           |
| Orthophosphate             | EPA 365.1                             | 0.1 mg/L                           |
| Chloride                   | EPA 325.1                             | 2.5 mg/L                           |
| Calcium                    | EPA 200.7                             | 0.5 mg/L                           |
| Magnesium                  | EPA 200.7                             | 0.5 mg/L                           |
| Potassium                  | EPA 200.7                             | 1.0 mg/L                           |
| Sodium                     | EPA 200.7                             | 1.0 mg/L                           |
| Hardness                   | Standard Method 314A<br>(calculation) | 5 mg/L                             |
| Arsenic                    | EPA 200.8 or 206.3                    | 0.005 mg/L                         |
| Selenium                   | EPA 200.8 or 270.3                    | 0.002 mg/L                         |

<sup>1</sup> Method numbers refer to EPA Methods for Chemical Analysis of Water and Wastes (EPA, 1983).

**Table 3**  
**Summary of Groundwater Monitoring Locations and Sampling Frequency**

| <b>Monitoring Objective</b>  | <b>Requirement</b>   | <b>Sampling Frequency</b>   | <b>Monitoring Locations</b>   |
|--|----------------------|---|---|
| Demonstrate Performance of Simplot Groundwater Remedy                        | Performance Standard | <u>Extraction System Startup Phase and Year</u><br><u>After: Quarterly</u><br><u>Subsequently: Monthly</u><br><u>After compliance with performance standard is met: Semi-annually</u> | Batiste Spring (POC)<br>Spring at Batiste Road (POC)  |
| Demonstrate Performance of Former East Overflow Pond Closure and Replacement | Performance Standard | Quarterly   | 332<br>318  |
| Track Groundwater Quality Improvements Down Gradient of Extraction System    | SOW                  | Quarterly/<br>Semi-annually <sup>1</sup>  | 310<br>312<br>319<br>320<br>330<br>331<br>339<br>347<br>348<br>526<br>527   |
| Identify Other Potential Sources of Constituents to Groundwater              | ---                  | Semi-annually/Annually <sup>1</sup>   | 307<br>309<br>313<br>315<br>316<br>317<br>323<br>325<br>326<br>327<br>328<br>329<br>332<br>333<br>334<br>340<br>342<br>503<br>505<br>517<br>518 |

Notes: 1 The sampling frequency may be reduced based on the findings of the five-year data review.